

# PATENT COOPERATION TREATY

REC'D 30 AUG 2005

From the  
INTERNATIONAL SEARCHING AUTHORITY

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To:

see form PCT/ISA/220

PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2005/008378

International filing date (day/month/year)  
11.03.2005

Priority date (day/month/year)  
12.03.2004

International Patent Classification (IPC) or both national classification and IPC  
B29B7/74

Applicant  
INTELLIPACK

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/008378

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/008378

**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
- ☒ claims Nos. 21-42

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the whole application or for said claims Nos. 21-42
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
  - the written form ☐ has not been furnished
  - ☐ does not comply with the standard
  - the computer readable form ☐ has not been furnished
  - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- ☐ See separate sheet for further details

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/008378

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**Box No. IV Lack of unity of invention**

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1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☐ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☒ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:  
**see separate sheet**
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
  - ☒ the parts relating to claims Nos. 1-20,43,44

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-20,43,44
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-20,43,44
Industrial applicability (IA)	Yes: Claims	1-20,43,44
	No: Claims	

2. Citations and explanations

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

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International application No.  
PCT/US2005/008378

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item IV.**

**1. The separate inventions/groups of inventions are:**

**1.1 Claims: 1-20,43,44**

A hand held dispenser comprising a handle, a dispense material manifold, a mixing module, a driver, a reciprocating member and a first and a second valve assembly extending rearwardly off of the manifold and so of the mixing module.

A method of assembling a dispenser and a method of dispensing polyurethane packaging foam.

**1.2 Claims: 21-27**

A hand held dispenser comprising a handle, a dispense material manifold, a mixing module, a drive assembly, a reciprocating member said drive assembly comprising a ball screw transmission assembly with a ball screw pitch angle of less than 11 degrees.

**1.3 Claims: 28-32**

A hand held dispenser comprising a handle, a dispense material manifold, a mixing module, a driver, a reciprocating member said dispenser having electrical plug connection means at a rear end of said dispenser.

**1.4 Claims: 33,34**

A hand held dispenser comprising a handle, a dispense material manifold, a mixing module, a driver, a reciprocating member said manifold having a pair of dispense material passageways and fittings for connection with sources of dispense material said fittings being swivel fittings.

**1.5 Claim: 35**

A hand held dispenser comprising a handle, a dispense material manifold, a mixing module, a driver, a reciprocating member said manifold having a pair of dispense material passageways and fittings for connection with sources of dispense material said fittings having castellated free ends.

**1.6 Claim: 36,37**

A hand held dispenser comprising a handle, a dispense material manifold, a mixing module, a driver, a reciprocating member, an electronic trigger assembly and a finger compression member.

**1.7 Claims: 38-42**

A hand held dispenser comprising a handle, a dispense material manifold, a mixing module, a driver, a reciprocating member and elongated filter assemblies.

**2. They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:**

The closest prior art has been identified as US-B-6283329 (D1). D1 discloses a hand held dispenser comprising a handle (fig. 1), a dispense material manifold (fig. 1), a mixing module (fig. 1, 5, col. 9, line 56 to col. 10, line 13), a driver (fig. 1, col. 7, lines 53-67) and a reciprocating member (col. 10, lines 51-67).

**2.1 From the comparison of the first invention (claims 1-20,43,44) and the disclosure of D1, the following technical feature of the first invention can be seen to make a contribution over D1 and therefore is considered to be the STF (Special Technical Feature, Rule 13.2 PCT) of the first invention:**

- a first and a second valve assembly extending rearwardly off of the manifold and of the mixing module.

This STF solves the problem of improving the balancing of the hand held dispenser in operator hand.

**2.2 From the comparison of the second invention (claims 21-27) and the disclosure of D1, the following technical feature of the second invention can be seen to make a contribution over D1 and therefore is considered to be the STF of the second invention:**

- the drive assembly comprises a ball screw transmission assembly with a ball screw pitch angle of less than 11 degrees.

This STF solves the problem of decreasing the susceptibility of a failure mode called "free-wheeling" (see page 9, lines 10-21).

- 2.3 From the comparison of the third invention (claims 28-32) and the disclosure of D1, the following technical feature of the third invention can be seen to make a contribution over D1 and therefore is considered to be the STF of the third invention:
- the dispenser has electrical plug connection means at a rear end of said dispenser.

This STF solves the problem of allowing a quick release at a desired time for change over of a dispenser (see page 16, lines 12-23).

- 2.4 From the comparison of the fourth invention (claims 33,34) and the disclosure of D1, the following technical feature of the fourth invention can be seen to make a contribution over D1 and therefore is considered to be the STF of the fourth invention:
- the manifold has a pair of dispense material passageways and fittings for connection with sources of dispense material said fittings being swivel fittings.
- This STF solves the problem of decreasing material leakage (see page 20, lines 4-20).

- 2.5 From the comparison of the fifth invention (claim 35) and the disclosure of D1, the following technical feature of the fifth invention can be seen to make a contribution over D1 and therefore is considered to be the STF of the fifth invention:
- the manifold has a pair of dispense material passageways and fittings for connection with sources of dispense material said fittings having castellated free ends.

This STF solves the problem of improving the material flow (see page 21, line 21 to page 22, line 2).

- 2.6 From the comparison of the sixth invention (claims 36,37) and the disclosure of D1, the following technical feature of the sixth invention can be seen to make a contribution over D1 and therefore is considered to be the STF of the sixth invention:
- an electronic trigger assembly and a finger compression member.

This STF solves the problem of improving the robustness of the trigger switch (see page 11, line 15 to page 12, line 7).

- 2.7 From the comparison of the seventh invention (claims 38-42) and the disclosure of D1, the following technical feature of the seventh invention can be seen to make a



contribution over D1 and therefore is considered to be the STF of the sevens invention:

- elongated filter assemblies.

This STF solves the problem of improving the filtering capacity of the dispenser.

- 2.8 The above analysis shows that the STF of the seven inventions are not the same and are not corresponding. A comparison of the objective problems related to the seven inventions, seen in the light of the description and drawings of the application, shows that they are different and that they have no corresponding technical effect.

In conclusion, the groups of claims are not linked by common or corresponding special technical features and define 7 different inventions not linked by a single general inventive concept.

The application, hence does not meet the requirements of unity of invention as defined in Rules 13.1 and 13.2 PCT.

**Re Item V.**

1. Reference is made to the following documents:

D1 : US-B-6 283 329

D2 : US-A-5 529 245

2. The following statements are made taking into account item VIII.

2.1 Independent claim 1

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.

Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses (the references in parentheses applying to

this document): a hand held dispenser, comprising: a handle (*fig. 1*); a dispense material manifold supported by said handle (*fig. 1*); a dispense material mixing module supported at a forward, dispensing end of said manifold, said mixing module having a dispense material passageway that opens out to a dispenser outlet (*col. 9, line 56 to col. 10 line 13, fig. 1*); a driver supported by said handle (*col. 7, lines 53-67, fig. 1*); a reciprocating member in driving communication with said driver and positioned for reciprocation in said mixing module (*col. 10, lines 51-67, fig. 5*); a first valve assembly and a first valve housing receiving said first valve assembly; a first dispense material hose fitting in dispense material communication with said first valve housing; a second valve assembly and a second valve housing receiving said second valve assembly; a second dispense material hose fitting in dispense material communication with said second valve housing (*col. 8, lines 45-63, fig. 2, 9*).

The subject-matter of independent claim 1 differs from the disclosure of D1 in that said first and second valve housings extend rearwardly off of a first side of a main body portion of said manifold such that said first and second valve housings are rearward of a rearward end of said mixing module.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The objective problem underlying claim 1 can only be regarded as improving the balancing of the hand held dispenser in operator hand (*see description, page 5, lines 8-13*).

The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

A hand held dispenser with first and second valve housings extending rearwardly off of a first side of a main body portion of a manifold such that said first and second valve housings are rearward of a rearward end of a mixing module is known from D2 (*col. 5, line 64 to col. 6, line 2, fig. 1,2*).

The skilled person would therefore regard it as normal design to include this feature in the hand held dispenser described in D1 in order to solve the objective underlying problem.

The subject-matter of claim 1 is therefore deprived of an inventive step (Article 33(3) PCT).

**2.2 Independent claim 43**

The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claim **43**, which therefore is also considered not inventive.

**2.3 Independent claim 44**

The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claim **44**, which therefore is also considered not inventive.

**3. Dependent claims 2 - 20**

Dependent claims **2 - 20** do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step.

The cited prior art documents already disclose the features of dependent claims **2, 9, 12, 18** and **19** as such, see the International Search Report.

The features of dependent claims **2 - 20** are merely some of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problems posed.

**4. The subject-matter of claims 1 to 20, 43 and 44 is considered as susceptible of industrial application (Article 33(4) PCT).**

**Re Item VII.**

**1. Independent claims 1, 43 and 44 are not in the two-part form in accordance with Rule**

- 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
  3. Contrary to the requirements of Rule 5.1 (a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.
  4. The units of measure (inch) employed on pages 11, 18, 37 and 46 and of temperature (°F) employed on pages 13 and 45 are not additionally expressed in terms of the units stipulated by Rule 10.1 (a) and (b) PCT.

**Re Item VIII.**

In respect of Article 6 PCT, the following is observed.

1. Claims **43** and **44** have been drafted as separate independent claims of the method category. Under further reference to the PCT-Guidelines 5.15 and 5.42, it can not be deducted from these independently drafted claims which features are essential for the definition of the area for which protection is sought. The aforementioned claims therefore lack conciseness.